TABLE 7-6

Early career doctorates who indicate that various critical competencies were very or extremely important to their sampled position, by doctoral degree characteristics: 2017

(Percent)

| Selected<br>characteristic   | Appropriately apply research methodologies | Develop<br>new ideas,<br>processes,<br>or<br>products | Critically<br>analyze<br>and<br>evaluate<br>findings<br>and<br>results | Demonstrate<br>theoretical<br>and practical | Work<br>constructively<br>with<br>colleagues | Manage<br>and<br>influence<br>others | Communicate ideas clearly and persuasively in writing | Communicate ideas clearly and persuasively orally | Effectively<br>plan,<br>manage,<br>and<br>deliver<br>projects<br>on time |
|--|--|---|--|---|--|--------------------------------------|---|---|--|
| Number of early<br>career doctorates for<br>whom the item was<br>applicable<br>(denominator) | 173,800                                    | 179,400   | 181,400  | 184,300                                     | 182,900                                      | 180,300                              | 185,200   | 185,500   | 179,800  |
| Percentage of early<br>career doctorates   | 69.3                                       | 70.6  | 77.1   | 81.5  | 66.2   | 59.9                                 | 80.6  | 80.1  | 69.5   |
| Doctoral degree type   |  |   |  |   |  |                                      |   |   |  |
| Professional<br>degree or<br>doctoral<br>equivalent <sup>a</sup>                             | 54.7                                       | 65.7  | 72.2   | 82.4  | 76.5   | 74.4                                 | 80.1  | 84.0  | 79.4   |
| Research degree Years since doctoral degree  | 70.5                                       | 71.1  | 77.5   | 81.4  | 65.2   | 58.6                                 | 80.7  | 79.8  | 68.6   |
| 1 year or less   | 74.6                                       | 73.3  | 80.6   | 80.7  | 65.5   | 57.6                                 | 79.2  | 77.4  | 69.3   |
| 2-5 years  | 68.5                                       | 70.2  | 76.3   | 81.2  | 66.3   | 59.1                                 | 80.5  | 80.2  | 69.7   |
| 6-10 years   | 67.4                                       | 69.7  | 76.3   | 82.2  | 66.3   | 62.3                                 | 81.6  | 81.6  | 69.4   |
| Origin of doctoral degree  | 07.4                                       | 09.7  | 70.1   | 02.2  | 00.3   | 02.3                                 | 61.0  | 01.0  | 09.4   |
| U.S. degree  | 67.3                                       | 69.1  | 75.8   | 81.1  | 66.0   | 59.9                                 | 80.7  | 80.8  | 69.3   |
| Non-U.S. degree  | 81.4                                       | 80.5  | 85.4   | 83.9  | 67.5   | 60.3                                 | 80.2  | 76.0  | 71.0   |
| Field of doctoral degree   |  |   |  |   |  |                                      |   |   |  |
| Science and engineering  | 74.4                                       | 74.5  | 79.9   | 81.1  | 65.8   | 60.3                                 | 79.1  | 78.0  | 69.2   |
| Biological,<br>agricultural, and<br>environmental<br>life sciences                           | 78.4                                       | 78.5  | 83.6   | 81.5  | 73.4   | 67.7                                 | 82.7  | 79.1  | 78.8   |
| Agricultural<br>and<br>environmental<br>life sciences  | 73.2                                       | 76.8  | 78.2   | 84.3  | 80.3   | 64.9                                 | 83.7  | 77.6  | 80.1   |
| Biological and<br>biomedical<br>sciences   | 79.2                                       | 78.8  | 84.5   | 81.1  | 72.4   | 68.2                                 | 82.6  | 79.3  | 78.6   |
| Engineering  | 77.4                                       | 81.1  | 83.8   | 83.8  | 70.2   | 68.0                                 | 80.9  | 81.1  | 71.3   |
| Mathematics<br>and computer<br>sciences  | 67.0                                       | 69.0  | 70.8   | 77.5  | 60.5   | 48.0                                 | 70.0  | 72.4  | 54.5   |
| Computer and information sciences  | 65.8                                       | 72.8  | 71.2   | 77.2  | 67.2   | 56.7                                 | 72.8  | 71.7  | 61.1   |
| Mathematics and statistics   | 68.1                                       | 65.3  | 70.4   | 77.7  | 54.0   | 39.4                                 | 67.4  | 73.1  | 48.1   |

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Early career doctorates who indicate that various critical competencies were very or extremely important to their sampled position, by doctoral degree characteristics: 2017

(Percent)

| Selected characteristic   | Appropriately apply research methodologies | Develop<br>new ideas,<br>processes,<br>or<br>products | Critically<br>analyze<br>and<br>evaluate<br>findings<br>and<br>results | Demonstrate<br>theoretical<br>and practical<br>understanding<br>of your<br>subject area | Work<br>constructively<br>with<br>colleagues | Manage<br>and<br>influence<br>others | Communicate<br>ideas clearly<br>and<br>persuasively<br>in writing | Communicate<br>ideas clearly<br>and<br>persuasively<br>orally | Effectively<br>plan,<br>manage,<br>and<br>deliver<br>projects<br>on time |
|---|--|---|--|---|--|--------------------------------------|---|---|--|
| Multidisciplinary<br>fields and<br>science and<br>engineering<br>related fields         | 70.5                                       | 72.1  | 77.5   | 84.2  | 70.7   | 69.4                                 | 79.6  | 80.6  | 75.9   |
| Physical<br>sciences,<br>geosciences,<br>atmospheric<br>sciences, and<br>ocean sciences | 79.4                                       | 79.6  | 85.6   | 81.8  | 65.5   | 61.8                                 | 76.1  | 75.0  | 69.7   |
| Psychology and social sciences  | 68.6                                       | 65.7  | 74.0   | 79.8  | 57.9   | 51.9                                 | 80.2  | 79.3  | 63.6   |
| Psychology  | 74.8                                       | 65.9  | 75.6   | 82.1  | 63.7   | 59.2                                 | 81.7  | 74.0  | 71.1   |
| Social sciences   | 66.3                                       | 65.6  | 73.5   | 78.9  | 55.6   | 48.9                                 | 79.6  | 81.4  | 60.7   |
| Health  | 61.8                                       | 62.7  | 69.9   | 80.8  | 76.6   | 72.9                                 | 78.9  | 77.3  | 72.8   |
| Non-science and engineering   | 61.0                                       | 65.2  | 73.4   | 82.3  | 64.5   | 56.4                                 | 83.8  | 84.7  | 69.4   |
| Education   | 57.8                                       | 67.6  | 74.5   | 82.6  | 75.5   | 70.7                                 | 81.6  | 83.2  | 76.1   |
| Humanities  | 60.6                                       | 67.7  | 77.3   | 81.3  | 55.7   | 48.7                                 | 91.1  | 87.8  | 62.9   |
| Other non-<br>science and<br>engineering  | 63.9                                       | 61.5  | 70.1   | 82.7  | 60.5   | 48.6                                 | 80.9  | 84.1  | 67.5   |

<sup>&</sup>lt;sup>a</sup> Includes medical and related degrees, such as Medical Doctors (MD), Doctor of Pharmacy (PharmD), and other professional degrees such as Doctor of Education (EdD).

## Note(s):

Counts are rounded to the nearest 100. Percentages are calculated from unrounded counts and rounded to the nearest 10th of a percent. "Not used in this position" responses are excluded from the denominator for each column variable.

## Source(s):

National Center for Science and Engineering Statistics, Early Career Doctorates Survey, 2017.